

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058370

Luminaire Tested: S122RDR-H485D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058370  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

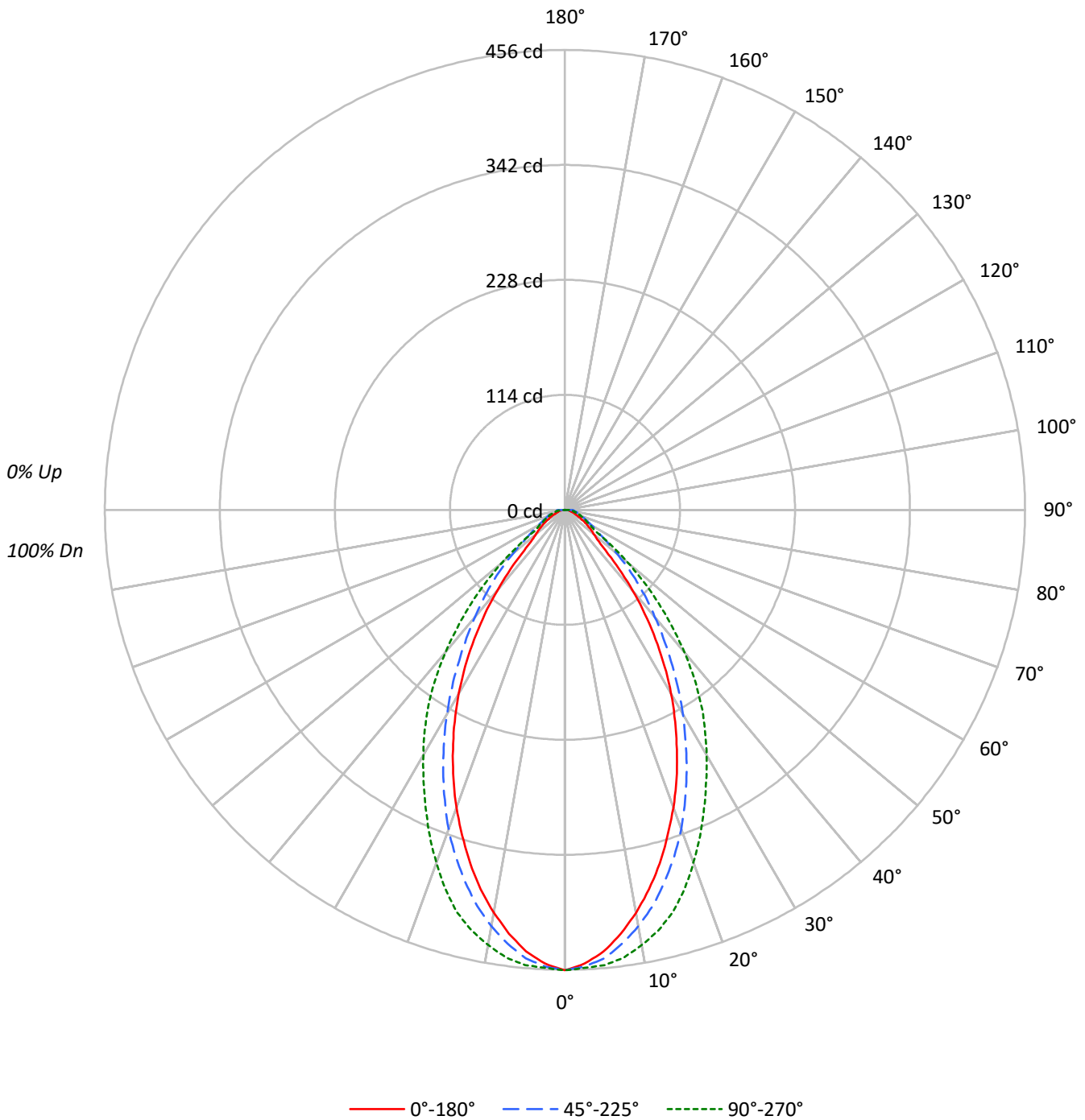
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 553.7 lumens  
Efficiency: N/A  
Efficacy: 31.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8424	8424	8424
5°	8141	8267	8393
10°	7600	7855	8211
15°	6933	7296	7892
20°	6168	6620	7313
25°	5345	5815	6643
30°	4481	4986	5983
35°	3530	4125	5303
40°	2517	3334	4427
45°	1487	2638	3434
50°	1071	1909	2337
55°	894	1374	1177
60°	727	1100	1000
65°	594	978	917
70°	513	950	879
75°	485	970	870
80°	499	1158	935
85°	720	1863	1143

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3434 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.9	7.6
10°-20°	107.6	19.4
20°-30°	132.7	24.0
30°-40°	118.0	21.3
40°-50°	75.3	13.6
50°-60°	36.2	6.5
60°-70°	21.2	3.8
70°-80°	13.6	2.5
80°-90°	7.2	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	282.1	51.0
0°-40°	400.2	72.3
0°-60°	511.7	92.4
0°-90°	553.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	553.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	440	448	446	449	453	41
15°	363	372	382	400	413	101
25°	262	273	286	306	326	120
35°	157	169	183	211	235	97
45°	57	74	101	117	132	48
55°	28	36	43	41	37	25
65°	14	24	22	20	21	14
75°	7	15	14	13	12	7
85°	3	8	9	8	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	456.5	456.5	456.5	456.5	456.5
2.5°	450.4	457.9	453.1	453.1	454.5
5°	439.5	447.7	446.3	449.0	453.1
7.5°	423.9	432.8	434.1	441.6	447.7
10°	405.6	415.1	419.2	430.0	438.2
12.5°	385.3	394.8	402.2	415.8	427.3
15°	362.9	371.7	381.9	399.5	413.1
17.5°	338.5	350.0	360.2	378.5	394.1
20°	314.1	324.9	337.1	354.8	372.4
22.5°	289.0	299.1	311.3	329.7	350.0
25°	262.5	272.7	285.6	305.9	326.3
27.5°	236.7	246.9	259.1	281.5	303.2
30°	210.3	220.5	234.0	257.1	280.8
32.5°	183.8	194.7	208.2	233.3	258.4
35°	156.7	168.9	183.1	211.0	235.4
37.5°	130.2	142.4	160.1	187.2	210.3
40°	104.5	118.7	138.4	162.8	183.8
42.5°	79.4	95.0	119.4	139.1	157.4
45°	57.0	73.9	101.1	117.3	131.6
47.5°	43.4	55.6	83.4	96.3	106.5
50°	37.3	44.8	66.5	76.0	81.4
52.5°	32.6	39.3	52.9	57.7	57.7
55°	27.8	36.0	42.7	41.4	36.6
57.5°	23.7	32.6	35.3	29.8	31.2
60°	19.7	29.8	29.8	26.5	27.1
62.5°	16.3	27.8	25.8	23.1	23.7
65°	13.6	24.4	22.4	20.3	21.0
67.5°	10.9	21.7	19.7	18.3	18.3
70°	9.5	19.7	17.6	16.3	16.3
72.5°	8.1	17.0	15.6	14.2	14.2
75°	6.8	14.9	13.6	12.9	12.2
77.5°	6.1	12.9	12.2	10.9	10.2
80°	4.7	10.9	10.9	10.2	8.8
82.5°	4.1	9.5	9.5	8.8	7.5
85°	3.4	8.1	8.8	7.5	5.4
87.5°	2.7	7.5	7.5	6.1	4.1
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	9.08	10.36	9.45	10.67	10.98	8.86	10.13	9.22	10.45	10.76
	3H	10.31	11.45	10.69	11.78	12.14	10.45	11.59	10.83	11.92	12.28
	4H	10.76	11.82	11.17	12.17	12.56	11.17	12.23	11.57	12.58	12.96
	6H	11.14	12.12	11.56	12.49	12.88	11.82	12.80	12.24	13.17	13.56
	8H	11.30	12.22	11.73	12.61	13.02	12.15	13.08	12.59	13.47	13.87
	12H	11.46	12.34	11.89	12.72	13.15	12.45	13.34	12.89	13.72	14.15
4H	2H	9.63	10.69	10.03	11.04	11.42	9.45	10.51	9.86	10.86	11.25
	3H	11.32	12.20	11.74	12.60	13.00	11.29	12.16	11.70	12.57	12.97
	4H	12.12	12.90	12.55	13.32	13.76	12.17	12.95	12.60	13.37	13.81
	6H	12.76	13.44	13.22	13.88	14.35	13.01	13.69	13.48	14.14	14.61
	8H	13.01	13.64	13.48	14.09	14.56	13.44	14.07	13.91	14.52	14.99
	12H	13.26	13.82	13.74	14.30	14.78	13.84	14.40	14.33	14.89	15.36
8H	4H	12.54	13.17	13.01	13.62	14.09	12.59	13.22	13.05	13.67	14.14
	6H	13.52	14.04	14.02	14.53	15.01	13.68	14.19	14.18	14.69	15.17
	8H	14.01	14.47	14.53	14.99	15.48	14.27	14.73	14.79	15.25	15.74
	12H	14.51	14.92	15.02	15.42	15.99	14.87	15.28	15.39	15.78	16.35
12H	4H	12.60	13.16	13.09	13.65	14.12	12.66	13.22	13.15	13.70	14.18
	6H	13.68	14.15	14.21	14.67	15.16	13.84	14.31	14.36	14.82	15.32
	8H	14.32	14.73	14.84	15.23	15.80	14.55	14.97	15.07	15.46	16.03